CENTERVIEWS

AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE • BROOKS AFB, TEXAS VOL. 6, NO. 2 SUMMER 2000

In The News

On the cover:
Drawing from the master plan for Security Hill at Kelly Air Force Base, Texas. Courtesy Design and Construction Directorate.

CENTER VIEWS

AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE
BROOKS AFB, TEXAS

VOL. 6. NO. 2 SUMMER 2000

THE AFCEE MISSION

To provide Air Force leaders the comprehensive expertise to protect, preserve, restore, develop and sustain the nation's environmental and installation resources.

Center Views is published quarterly as a funded newspaper by the Multimedia and Public Affairs Division, Air Force Center for Environmental Excellence Headquarters, Brooks Air Force Base, Texas. It is an authorized publication for members of the U.S. Military services.

Contents of *Center Views* are not necessarily the official views of, or endorsed by, the U.S. government, the Department of Defense or the Department of the Air Force. Reference to any commercial product or company does not imply endorsement by the government or any of it's agencies.

All pictures are U.S. Air Force photos unless otherwise noted. Readers may submit articles, photographs and artwork for publication. Material, however, will be edited to conform to standards set forth in Air Force Instruction 35-301 and the Associated Press Stylebook and Libel Manual. Suggestions and criticisms are also welcome.

Editorial office: HQ AFCEE/MSP, 3207 North Road, Bldg. 532, Brooks AFB, Texas 78235-5363; telephone (210) 536-4228 (DSN 240-4228); fax 5256; e-mail **gil.dominguez@hqafcee.brooks.af.mil** . Visit *Center Views* on the World Wide Web at **http://www.afcee.brooks.af.mil/MS/MSP/center/centerviews.htm**

Community plan wins national award

By Tech. Sgt. Jim Hughes
Air Intelligence Agency
Kelly AFB, Texas

The nation's leading urban planning experts recently deemed the Air Intelligence Agency's Community Plan for Security Hill at Kelly AFB, Texas, as the best in the country among federal projects.

The Federal Planning Division of the American Planning Association awarded the honor to the agency's plan for re-designing Security Hill after the area becomes a part of the adjacent Lackland Air Force Base once Kelly closes in 2001.

The section of the base known as Security Hill took its name from the AIA's predecessor, the U.S. Air Force Security Service.

A six-person team put together by AFCEE worked on the plan in close coordination with Security Hill and Kelly facility, security and environmental experts.

Air Force Reserve Maj. Mark Gillem, individual mobilization augmentee with AFCEE, served as team leader for the project. He feels that even though the plan won a prestigious award, the real winners will be the people of Security Hill once work is completed.

"If it's executed following the plan as we laid it out, what will be achieved is a true campus setting that people will be glad to call home," Gillem said. "They'll be proud to live there and proud to work there."

Work began on the project in 1997 when AIA sent in a request to AFCEE to form a team to re-design the Hill. AIA officials wanted to create a campus-like atmosphere that would increase quality of life, make life easier for pedestrians, reduce traffic congestion, provide better force protection for facilities and personnel and provide a common-sense parking plan.

The AFCEE team took it from there. In November 1997 they held meetings with Hill and Kelly experts, conducted surveys with people who live and work on the Hill and visited Trinity University in San Antonio, considered a model example of a campus community. The team made another visit in March 1998 to fine-tune details of the plan.

During the meetings with Hill and Kelly experts, the team assessed what the units staying on the Hill needed facility wise. They took into consideration security issues unique to AIA, force protection needs and environmental issues, such as how much greenery the Hill needed and what facilities were off-limits for removal due to them being historical sites.

At the surveys, the team showed designs of government and civilian organizations to get a feel for a design-style that would fit in with the Hill and its people. From the ratings the pictures received, the team took away ideas that might work, and tossed those that probably wouldn't.

From there, the team took their findings back to AFCEE and came up with a plan that would match all these considerations, plus fit in with Lackland's main base developmental plan.

"We pulled a few all nighters on it," Gillem said. "We worked several 60-hour weeks to come up with this plan that we feel will provide a pleasant, walkable campus environment."

But while the plan won an award for the way it was when Gillem and the team turned it over to AIA, it already has and likely will continue to evolve, said Capt. Steve Baird, Headquarters AIA civil engineer.

"The contractor we're working with has made some changes and continues to work on the project," Baird said. "We are 35 percent through the process, and we're

in a state of flux right now. A lot of things haven't been narrowed down yet."

Baird said one big issue the contractor, Black & Veatch of Kansas City, Mo., is working on is force protection. He said there are discussions going on about where buildings should go and how close they should be to each other.

And while the plan continues to evolve, Baird insists AFCEE's work wasn't for naught.

"We stick to the basic design principles the team provided us," he said. "The area will still have the same feel to it as laid out in AFCEE's plan."

That feel will be a Texas Hill Country theme featuring the latest ideas from the corporate world, Gillem said.

"We were really excited (when developing the plan)," Gillem said. "The Hill presented the opportunity to create mixed-use buildings. These are multi-storied buildings with a number of uses: administrative buildings with perhaps a child care center and places to eat on the ground level."

The plan may also feature an outdoor community area, kind of like a park, to serve as a community focal point, similar to what many college campuses have.

Parking areas may also feature landscaping, with trees and grass, and also under consideration is a four-lane road connecting the Hill with Lackland.

But the final design will have to wait until base officials decide upon what will be the best for the Hill and its residents, Baird said.

Baird estimated it could be 18-24 months until the project starts, but it might be longer depending on when the funds become available.

Once all is said and done, though, the team from AFCEE and AIA civil engineers are sure Hill residents and workers will have an area they can be proud to call home.

Former Air Force planner selected as 'Fellow'

Former Air Force comprehensive planner Philip Clark was named a Fellow of the American Institute of Certified Planners, the AICP, at a ceremony held during the organization's annual conference in New York City in April.

He was among 82 certified planners selected for the honor.

AICP officials said Clark was recognized for his achievements in the field of urban and rural planning. Being elected to Fellow, which recognizes contributions to the planning profession and society in general, is one of the highest honors bestowed by the organization, they said.

Clark can now use the letters FAICP after his name.

The honoree, who has over 30 years of experience in regional and comprehensive planning for both the public and private sectors, is now retired from Air Force Headquarters in Washington.

He received both a bachelor of architecture and master of regional planning degrees from Cornell University.

Never boring: Wells used in groundwater cleanup

The mast of an air rotary casing hammer (ARCH) rig is raised in preparation for drilling a new injection well.

The Air Force uses different types of wells in the environmental cleanup of contaminated groundwater. Extraction and injection wells draw out water for treatment and, once cleaned, pump it back into the aquifer. Monitoring wells, as the name suggests, are used to track and analyze contaminant plumes.

At Castle Airport (formerly an Air Force base) in Atwater, Calif., all of these types of wells are either in use or being installed.

Recently, extraction wells were installed in connection with Phase 3 of the groundwater treatment plant upgrade. These wells were drilled using mud rotary technology, a method that uses a fluid made from bentonite, a type of clay. This thick drilling "mud" is circulated through the center of the drill pipe and carries to the surface the heavy soil that the drill cuts from the bottom of the hole. The material also supports the walls of the newly drilled boring, preventing it from caving in.

Additionally, the mud seals the boring from groundwater while the drilling is under way, which reduces fluid movement between the soil and the bore hole and minimizes cross-contamination of aquifers at different ground levels.

Finally, the mud serves to cool and lubricate the drill bit, thus reducing heat generated by friction.

Air rotary casing hammer, or ARCH, drilling is the method preferred for injection wells. For this type of well drilling, a large, non-rotating metal casing is driven into the ground with a pneumatic hammer. As the casing is driven, a rotating drill makes the boring. Air compressors force air down though the drill rod, carrying the drill cuttings to the surface. The cuttings are routed through a discharge line to a holding bin for later disposal. An attachment called a cyclone slows down the speed of the discharged cuttings.

ARCH drilling is used for injection wells at Castle because no fluids are introduced to the groundwater while drilling. The water used to help the discharge is contained within the drive casing and makes minimal contact with the aquifer. The boring is also unlikely to cave in during drilling because the drive casing holds back the soil.

Also, the Air Force takes advantage of the drilling operations to obtain information on soil composition. A geologist is present at the site to evaluate the drill cuttings and they are removed from the boring. This helps complete the picture of the soil types and gives project engineers more data they can use to predict groundwater behavior.

The material in this article originally appeared in the March 2000 Enviro Fact Sheet at Castle Airport. It is used here with the editor's permission.

Workers lower a 20-foot section of stainless-steel well screen into a boring to build an injection well. (Photos by Julie Hunt)

Software program takes the emotion out of digging wells

By George Potter

Information is a natural by-product of groundwater plume monitoring. However, sorting through stacks of statistics has often been a daunting project for those trying to determine the scope to which plumes need to be checked. Realizing this, AFCEE's Technology Transfer division decided that a software program was needed to help with the labor.

Then, through AFCEE's annual Broad Agency Announcement, a Houston-based company, Groundwater Services, Inc., proposed a means of fixing this problem. The contract was signed and, with the help of the University of Houston Department of Civil and Environmental Engineering, GSI and AFCEE set out to develop software that could evaluate the trends present at a site.

Out of this collaboration between public, private and academic circles, the Monitoring and Remediation Optimization System was born. MAROS uses information gained through traditional site testing methods to determine the location and frequency of sampling.

In the past, project managers had to use their "best engineering judgment" to estimate the number of monitoring wells that were placed on a site and how frequently they were checked. The challenge for this system was in coming to terms with the difference between what the project manager and the regulators felt were appropriate levels of sampling.

To alleviate this problem, algorithms have been developed that aid in estimating the ideal number of wells and the frequency of sampling. However, these algorithms are still very manpower intensive. AFCEE has taken this a step farther by automating the process.

According to Jim Gonzales of the Technology Transfer Division, what MAROS aims to do is "take the emotion out" of these decisions. Instead, of "feeling" that another well is needed in order to be safe, the program will be able to calculate the frequency and number of checks required.

"What this thing tries to do," Gonzales said, "is look at the trends, and what's happening over time, and try to develop some sort of trend analysis to decide whether or not there appears to be opportunities to reduce your operating and maintenance costs by optimizing your long term sampling plans."

Thus, if the treatment process is moving at a steady rate, with little variation, the amount of monitoring can be cut back. However, if the analysis shows that concentrations are growing, monitoring can be increased. Either way, it is done with more accuracy than current methods and more efficiency than other techniques.

"The idea is to optimize–keyword is optimize–the sampling frequency and the number of wells which you should be sampling from," Gonzales said.

To do this, MAROS works with previous GSI-developed software such as BIOSCREEN and BIOCHLOR to produce secondary lines of evidence to illustrate future trends at these sites.

"Until newer and more effective environmental cleanup technologies, or 'silver bullets', are developed, most savings are going to come from reduced operational and maintenance costs associated with existing remediation systems," Gonzales said.

Ironically, at the same time that AFCEE was developing MAROS, the Environmental Protection Agency was working on another algorithm to produce the same results as MAROS in order to teach their remedial program managers how to recognize opportunities for reducing their sampling demand. Thus, they decided to share their information with AFCEE so that they could compare the MAROS method with that in use by EPA contractors.

Currently, the software is in a peer review stage, in which the EPA, universities, private companies, the Navy and the Army are looking at the program. Gonzales will then use their feedback to make any appropriate changes in the software before placing it on the AFCEE website in a beta version.

Outside users will then be able to register and download the software, which they may comment on during a two-month peer review. The software will then be edited one last time before being distributed at year's end after an EPA demonstration.

And what will be the final fate of MAROS?

Gonzales predicts that after the EPA's demonstration later this year, an AFCEE nation-wide MAROS Initiative will be launched during fiscal year 2001 to showcase opportunities for reducing costs at Air Force sites.

According to Gonzales, this initiative will be similar to other nation-wide studies performed at AFCEE, such as the natural attenuation and bioventing initiatives, and will attempt to optimize sampling plans for under $15,000 per site.

Previous software tools developed for AFCEE such as BIOCHLOR and BIOSCREEN have become favorites of environmental professionals. Since their transfer to the EPA, BIOSCREEN and BIOCHLOR are now the most downloaded software tools in the EPA inventory, said Gonzales.

"What happens is that everybody starts to use the tools, everybody becomes comfortable with them, and the opportunities for acceptance increases nationwide." Gonzales said. "MAROS won't be far behind."

Environmental Highlights

Training facility now uses clean-burning fuel

A firefighting training center now operating at Air Force Plant 42 in Palmdale, Calif., is a "zero discharge" facility that releases no ozone-depleting hydrocarbons into the air.

The $2.5 million facility uses clean-burning liquefied propane instead of jet fuel to create live-fire-training scenarios for Air Force firefighters.

The jet fuel formerly used in the training pits produced lingering clouds of dark smoke. Both jet fuel and the old pits, however, are no longer part of firefighter training at AFP 42.

"Transitioning from using jet fuel to clean-burning propane has been one of our top priorities," said Lt. Col. Robert Catlin, Detachment 1 commander at the plant. "During the planning stages it was mandatory that this facility operate on propane. We were not willing to negotiate on that design characteristic."

To comply with environmental regulations, the facility features a double 80-mm, high-density polyethylene liner system and a 10,000-gallon, above-ground storage tank. The area beneath each burn pit has a series of rock, sand and fabric grid layers to hold and stabilize liquids that accumulate during drills.

Rather than storing the liquids in a traditional holding pond, they are sent to a tank via an underground piping system. "When the tank is full the, water is tested for any constituents beyond the acceptable levels set by the local water quality control agency," explained project manager George Parker with the U.S. Army Corps of Engineers at AFP 42. "If it tests clean, we reuse the water for dust control or tree row irrigation. But if there are any constituents detected, the material is disposed of as a hazardous waste."

The material in this article originally appeared in a recent issue of the Stakeholder Sentinel, the newsletter of the Acquisition Environmental, Safety and Health Division of the Aeronautical Systems Center, Wright-Patterson Air Force Base, Ohio.

A vehicle douses propane-fueled flames during a demonstration at the new training center at Air Force Plant 42 in Palmdale, Calif. The "zero discharge" facility does not release ozone-depleting hydrocarbons into the air.

Base produces hazardous materials guide

The Hazardous Materials Management Office at Laughlin Air Force Base, Texas, has produced a hazardous materials (HAZMAT) guide to help all levels of management and shop-level personnel who must procure, use and dispose of hazardous materials.

The guide includes simplified procedures on how to determine if an item is indeed a hazardous material, exemptions for use of materials and the authorization process for acquiring hazardous materials, including instructions for filling out Air Force Form 3952, *Chemical Hazardous Material Request/Authorization*.

Also in the guide are suggestions for the proper use of hazardous materials, how to order and receive them and appendices containing process flowcharts, points of contact and a list of common terms and acronyms.

Although many of the references in the guide are Laughlin-specific, the guide can still serve as a template for installations wishing to create their own HAZMAT management publications.

The second edition of the new guide is available from PRO-ACT, the AFCEE environmental information service managed by the Environmental Quality Directorate. For more information contact the service at DSN 240-4214 or (800) 233-4356. The PRO-ACT Web site is at http://www.afcee.brooks.af.mil/pro-act.

This item originally appeared in the February issue of CrossTalk, the PRO-ACT monthly newsletter.

Letting nature take its course

Editor's Note: *AFCEE is involved in a number of studies dealing with phytoremediation. Two such studies are described here, one taking place in California and the other in Texas.*

Mother Nature offers less costly solution

Mother Nature may offer a solution for cleaning up chlorinated solvents found in contaminated groundwater. One of her remedies is phytoremediation, which refers to the use of plants (phyto in Greek) to degrade and stabilize organic and metal contamination.

To obtain nutrients, plants take up water into the root system where a variety of enzymes break down the organic compounds. They may also absorb and then release organic compounds into the air through their leaves. Plants with extensive root systems work more effectively.

Plants already have a successful reputation in the environmental business. For example, wastewater treatment facilities use aquatic plants. In California, wetlands are used to remove selenium from farm effluent.

AFCEE is currently funding and providing project support for a study looking into the use of phytoremediation to clean up contaminated groundwater at a Travis Air Force Base, California, battery shop where at one time the base had an acid neutralization pit used for battery acid disposal.

Chlorinated solvents, such as trichloroethylene (TCE), were routinely poured into the pit along with the acid. This practice, now discontinued, created a concentrated plume of solvent-contaminated groundwater.

After a review of soil and groundwater conditions in the area, the AFCEE team decided on the red ironbark eucalyptus tree for the study, mainly because the tree grows rapidly, uses a lot of water throughout the year and thrives under local conditions.

The team planted three rows of trees above the solvent plume and then waited for the trees to establish root systems and recover from the trauma of being transplanted. A solar-powered irrigation control system was set up to ensure that the trees receive enough water to survive while their root systems are growing.

Field measurements and groundwater sample analysis will continue for three years, to see if the phytoremediation process is indeed working. Once the study is complete, base project managers will review the performance results to determine if this tree technology can improve the cleanup at any of the contaminated groundwater sites on base.

The standard approach to treating contaminated groundwater is to dig a hole to get to the water, use an electrical pump to bring it to the surface and run it through a treatment system. But this is labor-intensive work that requires the use of utilities such as electricity and sewer connections, as well as road access, to be successful. It is also very expensive. Plants, on the other hand, offer a low-cost alternative — without all these requirements.

(From an article by Glenn Anderson, Travis Air Force Base, Calif.)

Study barking up the right tree

In Texas, the tree of choice for phytoremediation is the cottonwood.

Engineers from the Aeronautical Systems Center at Wright-Patterson Air Force Base, Ohio, are field testing the natural remedy to remove TCE from contaminated soil and groundwater at Air Force Plant 4 in Fort Worth.

Phytoremediation is one of several technologies being explored to augment existing cleanup systems at the plant.

Studies by the Environmental Protection Agency have shown that certain plants can break down organic pollutants by acting as filters or traps. Metals, pesticides, solvents, crude oil and even explosives can be cleaned by phytoremediation, according to the EPA reports.

Officials said that TCE contamination from the plant has reached the area's groundwater system, which is located between 10 and 12 feet below the surface. TCE and other hazardous substances, such as volatile organic compounds, are present also in the adjoining naval air station, formerly Carswell Air Force Base.

AFP 4, used as an aircraft manufacturing plant since 1942, was placed on the National Priorities List by the Environmental Protection Agency in 1990. It is currently

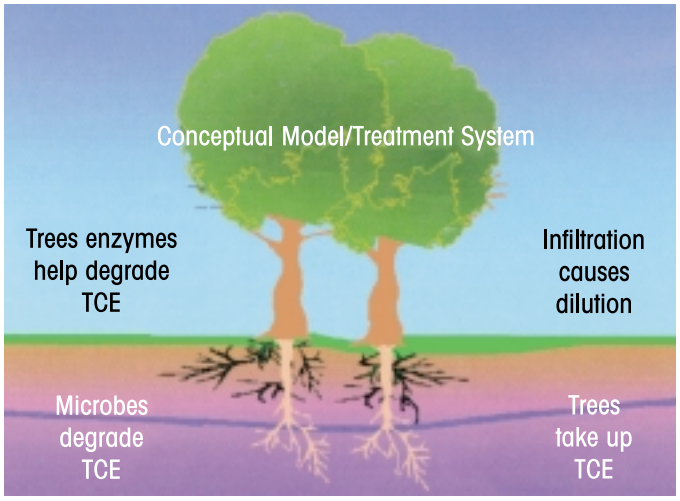

Illustration of how trees remove TCE contamination from the soil.

undergoing cleanup as part of the Installation Restoration Program.

AFCEE is one of several agencies taking part in the phytoremediation study. Also involved are the EPA, the Air Force Base Conversion Agency, U.S. Geological Survey, U.S. Forest Service and others.

More than 700 saplings of eastern cottonwoods, a type of poplar, were planted in 1996 for the project.

"Cottonwood trees are easily rooted, grow quickly and withdraw large volumes of water from the soil, serving as a natural pump-and-treat system," explained Greg Harvey, an Aeronautical Systems Center industrial hygienist and project manager. "Some of the saplings, about an inch above the ground when they were planted, grew more than 10 feet in the first year and have grown more than 35 in the past 4 years."

Laboratory tests with certain hybrids of the fast-growing poplar reveal that these trees act like 100-foot straws, extracting contamination from soil and groundwater. Reports indicate, also, that a mature eastern cottonwood tree, growing to a height of 80 feet, can draw up to 350 gallons of water from an aquifer each day.

As part of the field demonstration, TCE concentrations are being monitored in the groundwater, soil and tree tissues. Harvey said testing in November 1997, before the trees had been in the ground a year, indicated that some TCE had already been absorbed and degraded.

EPA tests indicate, also, that all the trees at the site are able to break down chlorinated hydrocarbons.

"This demonstration has allowed me to take a path outside normal remediation channels and approaches, and changed my conception of the possibilities with regard to cleaning up shallow groundwater," Harvey said.

He added that phytoremediation promises to be a cost-effective and sustainable way of doing business and pointed to studies that show the phytoremediation project to be equally efficient and less expensive than many of the mechanical pump-and-treat systems traditionally used.

"The Landfill 3 pump-and-treat operation at AFP 4 cost almost $1 million for initial startup and $300,000 annually. The cost of the phytoremediation project plans, however, was less than $50,000," Harvey said. "The total cost of the field demonstration to validate the project has been over $1 million; however, application of the proven technology will save money in the long-term."

In addition to the restoration benefits, the growing and harvesting of plants on a contaminated site are aesthetically pleasing and a solar-driven way to clean soil and air, the project manager stated.

He said, also, that phytoremediation seems to be the best of all worlds: it is effective and inexpensive, and trees are always more attractive than the steel pipes and pumps of a water-treatment system.

Officials said that work is underway to develop a model of how trees use water that may be applicable to environmental restoration worldwide.

(From an article by Tiffany Pitts, Aeronautical Systems Center)

Project manager Greg Harvey inspects some of the 700 cottonwood trees that are part of a phytoremediation project at Air Force Plant 4 in Fort Worth, Texas.

Native American firm expands its environmental horizons

Uranium became more valuable than gold in the mid-1940s when the Cold War increased the demand for the radioactive element. At that time the world's largest deposit of uranium ore lay underneath the sprawling Laguna Pueblo Reservation just west of Albuquerque, N.M.

Proceeds from operations of the Jackpile Mine at the Pueblo of Laguna benefited the pueblo's 7,000 residents who wisely invested the proceeds in educational programs and facilities for their children and improving the community's infrastructure.

But by the late 1970s the bottom had fallen out of the uranium market and after 30 years of mining the operations came to an end; and, suddenly, the people of the reservation found themselves with the world's biggest open pit uranium mine on their lands.

The three main pits eventually turned into giant pools of up to 70 feet in depth as groundwater and rain poured into them. At the bottom of each hole lay millions of tons of contaminated uranium ore. Countless more tons of low-grade ore, still waiting to be processed, were piled up in manmade mountains. The excavation had also destroyed nearly 3,000 acres of vegetation and changed the land's geophysical contours.

In the late 1980s, however, the people of the Pueblo of Laguna began working to reverse what three decades of uranium mining had done to their home. The main concern of reservation officials was to return the land to its natural state, something that would require a massive effort.

Deciding that the people of the Pueblo of Laguna should tackle the work themselves, the tribal council in 1988 formed the Laguna Construction Company, Inc., and chartered it with undertaking the largest reclamation and environmental project ever attempted.

The effort included handling 500 million gallons of contaminated water, excavation and placement of 33 million cubic yards of backfill to restore the land and replanting 3,000 acres of vegetation. In the end, what was supposed to be a seven-year project was completed almost a year ahead of schedule and 12 percent below the estimated cost.

With the successful completion of the project, Laguna continued to operate as a heavy and highway construction firm. In the mid-1990s, however, the company continued its diversification, teaming up with an AFCEE environmental contractor on regional soil and tank removal contracts. In 1994 Laguna was awarded two regional contracts with a five-year performance period and a $44 million ceiling.

While the "very intense reclamation program" at the Jackpile Mine enabled the construction firm to develop expertise and resources in the environmental field, the added element of working with AFCEE contracts "extended the Laguna work forces further in the environmental arena," said Neal D. Kaspar, company president and general manager.

He added that in its five-year association with AFCEE, the 100-person firm, which is wholly owned by the Pueblo of Laguna, has performed environmental cleanup work — primarily underground storage tank removal and soil remediation — on 12 Department of Defense facilities and has been awarded 20 delivery orders.

In recognition of the firm's work, DOD in 1997 awarded Laguna the Environmental Restoration/Small Business Excellence Award. The company is presently involved in the U.S. Air Force Mentor-Protègè Program as protègè to a large environmental firm.

"Working with AFCEE during the past five years has made Laguna Construction Company a more sophisticated company and has provided the expertise for it to move into other, broader areas of the environmental industry," Kaspar noted.

AFCEE's association with Laguna Construction is another example of the agency's willingness to give small, disadvantaged firms a chance to grow and its commitment to awarding contracts to Native American enterprises, center officials said.

Former AFCEE commander joins civilian firm

Former AFCEE executive director and military commander Col. Rick Coneway (Ret.) has been named senior vice-president of Department of Defense Services at Washington State-based Informatics Corporation.

"I am extremely pleased to have a senior vice-president with Colonel Coneway's talent and experience in this key leadership position," said Arnold Whipple Lara, Informatics chief executive officer. "We are looking to Rick to continue the expansion of our project management, engineering and information technology activities supporting the Department of Defense, and to pursue emerging new vertical markets."

Coneway recently retired from the Air Force Reserve after 31 years of service. His last assignment was serving as the senior Reserve assistant to AFCEE's director. During this time he was called to active duty for one year to serve in a full-time role as the center's executive director and military commander.

Coneway's most recent honor was being named Engineer of the Year by the Texas Society of Professional Engineers.

Contractor garners national recognition

AFCEE contractor Research Dynamics Incorporated has been named the National Small Business Prime Contractor of the Year by the Small Business Administration.

RDI was nominated by officials of the 12th Contracting Squadron, Randolph AFB, Texas, where RDI provided database management and hazardous materials/waste management support services.

The firm has provided contract services for a variety of military and government in the San Antonio area.

This national award is based upon all aspects of the company's operations, including management, organization, financial controls, customer interface, capabilities and total contract performance.

Founded in San Antonio in 1989 by its president, Nancy R. Kudla, RDI specializes in computer-related technical and management support services.

The firm is an 8(a) and qualified small disadvantaged, woman-owned and veteran-owned business.

In 1999, it was recognized as an Outstanding Minority Enterprise by the San Antonio Business Opportunity Council for the environmental services it provided to Randolph.

CENTER adds another TOOL to its contracting TOOLBOX

By Gil Dominguez

AFCEE has awarded a $2.9 million contract to Cape Environmental Inc., of Atlanta to help bases with their small environmental projects.

Called the Environmental Minor Construction and Repair Contract, the vehicle does exactly what its name implies.

"We've set up this contract for environmental construction and repair," said Cindy Hood, an Environmental Quality Directorate environmental engineer who was involved with developing the contract's technical provisions.

The contract will cover such projects as repair of storm water systems, installation of pollution-prevention and waste-minimization equipment, asbestos removal, small spill cleanup and removal of lead-based paint, to name just a few.

"Some of these are things normally done under a remedial action contract, but on a smaller scale," Hood noted.

The document was also the first of its type ever issued by the Human Systems Center's Environmental Contracting Division, which provides contract support to AFCEE.

"It's a pilot-type contract that will be available to AFCEE customers throughout the United States," according to contracting officer Brenda Dillard.

She described the contract as an 8(a) small business acquisition with a 36-month performance period.

"It's a pretty small dollar (amount) compared to our other contracts," Hood observed. "But it's a different type of contract in that it allows us to do compliance-related construction projects, which right now do not fit really well under our other contracts.

"We can do some things under our remedial action contracts, but those are typically for remediation work," she continued. "Customers, however, have requested other types of minor construction, usually related to compliance or pollution prevention. So this gives us another type of contract in our toolbox."

Front and Center

AFCEE engineer earns national recognition

Bill Kivela

William P. "Bill" Kivela has won a White House Closing the Circle Award for 2000.

Kivela, an environmental engineer assigned to AFCEE's Environmental Quality Directorate, was honored in the Executive Order 12856 Individual Challenge category which recognizes persons who have demonstrated outstanding leadership in implementing the executive order's pollution prevention previsions.

The award, signed by both the president and vice-president, was presented at a formal ceremony held in the Old Executive Office Building in Washington on June 6.

The Closing the Circle Awards, sponsored by the White House Task Force on Greening the Government Through Waste Prevention and Recycling, are now in their sixth year. The awards program recognizes federal employees and their facilities for efforts that resulted in significant contributions to or have made a significant impact on the environment.

Kivela, an 18-year civil service employee, is program manager of the Air Force Environmental Management Information System, or AF-EMIS. The computer software program helps installation environmental managers manage and track hazardous materials from purchase to final disposal and also assists them in preparing reports required by environmental regulators.

Kivela's duties include further development of the system, training people in its use and deploying AF-EMIS throughout the Air Force.

AFCEE officials noted that under the engineer's leadership, the program is now deployed to more than 168 Air Force, Air Force Reserve Command and Air National Guard bases worldwide. It is also the most widely used hazardous material tracking system in the Department of Defense, they added.

Closing the Circle officials said that this year's awards were particularly competitive, with 210 nominations in eight categories being submitted by 16 federal agencies. The 27 judges that participated in the selections represented academia, industry and government, officials said.

Director earns professional certification

J. Walter Epply III, director of AFCEE's Financial Management and Mission Support Directorate, has obtained the designation of Certified Defense Financial Manager after passing the CDFM exam recently.

Air Force officials said the rigorous test provides objective evidence that the candidate has in-depth knowledge of Department of Defense financial management.

Epply's organization establishes and maintains the various support systems necessary to sustain AFCEE's daily operations. He has been its director since 1995.

Epply began his Air Force career in 1971. He earned a bachelor of science degree in business administration from Babson College, Wellesley Hills, Mass., and a master's in public administration from Harvard University. In addition, he has completed the Professional Military Comptrollers School and the Systems Acquisition Funds Management Course.

Epply is a member of the Alamo City Chapter of the American Society of Military Comptrollers.

Contract professionals earn national award

Carol Singleton

Mary Urey

Two Environmental Contracting Division professionals have been designated as Fellows by the National Contract Management Association.

Carol Singleton and Mary Urey received the honor at a NCMA luncheon here in May. They are the ninth and tenth San Antonians and the first area women to receive this distinction, officials said.

The Fellows Award, created in 1966, is the third highest honor bestowed by the NCMA, the worldwide professional association for contract managers in government service. It recognizes individuals who have used their talent and experience to benefit the contracting field. Nominees for the award are evaluated according to their level of academic training, participation and experience in the contract management profession, organization officials said.

Singleton, a section chief, began her contracting career as an acquisition intern in 1983 in Philadelphia with the Defense Logistic Agency. She has been at Brooks since 1995.

Singleton received a bachelor of science degree cum laude in business and management from the University of Maryland and a master of science degree in contract acquisition management from the Florida Institute of Technology. She has been the vice president of the San Antonio NCMA Chapter for the past three years.

Urey is a supervisory contracting officer. She began her career in 1989 at Kelly Air Force Base, Texas, and in 1993 transferred to Brooks as a contract specialist. She has a bachelor of science degree in business and management from the University of Maryland and a master of arts degree with honors in procurement and acquisition management from Webster University. She has been an active member of NCMA for the past eight years and is the current national director of the Greater San Antonio chapter.

Texas partners meet to discuss successes

AFCEE and state regulators take time during their annual workshop to pose for a photo. They are, from left, Mark Vickery, director of the TNRCC Field Operations Division; Joe Vogel, deputy director of TNRCC's Office of Compliance and Enforcement; Ann McGinley, director of the TNRCC Enforcement Division; Thom Rennie, regional environmental manager with AFCEE's Regional Environmental Office in Dallas; Randy Tarbell, Air Force regional environmental coordinator, also at Dallas REO; and Paul Lewis with the TNRCC Technical Support Section. (Photo by Gil Dominguez)

By George Potter

One of the best things about good results is having the opportunity to let people know. This is exactly what members of the Texas Initiative-Environmental Partnering Group did at their workshop in Austin in May.

The TI-EPG, started in 1991, is the largest cooperative pollution-prevention effort between federal agencies and a state. It involves all of the service branches plus the Texas Natural Resource Conservation Commission, Defense Logistics Agency, Texas Guard, National Aeronautics and Space Administration, Coast Guard and Department of Energy.

Randy Tarbell of AFCEE's Regional Environmental Office in Dallas is the primary representative for the Department of Defense and the Air Force at the workshop. The meeting is held annually in conjunction with the Texas Natural Resource Conservation Commission's Environmental Trade Fair.

The TNRCC is the state's environmental regulatory agency.

Explained Tarbell, "The purpose of the TI-EPG is to coordinate environmental compliance issues, rule and law changes, conservation, restoration, technology, pollution-prevention and other issues that are important to the installations located in Texas and to the TNRCC."

These are some of the Texas successes highlighted at the workshop:

- The cleanup at Reese Air Force Base is considered the fastest in the Air Force. The base was closed in September 1997 and the last remedy was implemented in September 1999, only 24 months later. A major reason for this success was attributed to the effectiveness of the Reese base closure cleanup team and its initiatives to streamline the regulatory review process. The Air Force has credited cost savings of more than $6 million to the team.

- The $690 million conversion of Bergstrom Air Force into a major civilian airport in less than six years is the largest military conversion of its kind in recent history. The new Austin-Bergstrom International Airport represents the perfect match between meeting the needs of the community and making closing military facilities available for reuse. The former base is on schedule to achieve final remedy by the end of the year.

- At Kelly Air Force Base, interim remedies are in place and successfully operating for several groundwater plumes. Most of these interim systems are expected to be incorporated into final remedies, reducing the cost and duration of the final cleanup. Additionally, over 2000 new jobs were created last year due to base privatization efforts and another 2,800 are expected by the end of this year.

Environmental managers can now call H.O.M.E. for help

By Gil Dominguez

A computer program sponsored by AFCEE is helping make life easier for the people who create and maintain the records of hazardous products used on Air Force installations.

Known by its acronym of H.O.M.E (for Help On MSDS Entry) the program enables staffers at a base hazardous materials pharmacy — the HAZMART — to update records and create documents for the Air Force Environmental Information Management System. AF-EMIS is an automated system that tracks the acquisition, use and disposal of hazardous waste and materials.

Research Dynamics, Inc., a San Antonio-based 8(a) small business, is assisting AFCEE with H.O.M.E.'s development.

Center officials note that one of the major facets that makes AF-EMIS so important to installation environmental managers is the program's ability to store a great amount of data, information that is used to prepare reports required by the federal Emergency Planning and Community Right-to-Know Act, or EPCRA.

The chemical records maintained in AF-EMIS are created using information found in a document called the Material Safety Data Sheet, which is provided by product manufacturers. Regulations require that any hazardous material used in a workplace must be accompanied by an MSDS. The document tells workers about the types and amounts of hazardous components, or "constituents," an item contains along with their inherent hazards and how to safely use and store the product.

This information is keyed into the AF-EMIS database, allowing the HAZMART crew to keep track of the amounts and types of hazardous materials the base receives and issues to the shops.

Pesticides, herbicides, degreasers, adhesives and paints are some examples of materials that require special handling.

If, however, the MSDS is not readily available for some reason, HAZMART employees are forced to spend many hours tracking it down to get the data AF-EMIS needs.

This is where H.O.M.E. comes in.

With many other bases using the same products, chances are that there is already a general MSDS for a

Stella Stachoulas, left, and Noreen Olvera of Research Dynamics, Inc., review data for the Help On MSDS Entry (H.O.M.E.) system. The AFCEE-sponsored computer program enables staffers at Air Force base hazardous materials pharmacies to create and maintain documents for the Air Force Environmental Information Management System.

specific item in the system. All staffers need to do is go to the H.O.M.E. Web site and use the search function to find the right MSDS. This function requires that users provide as much information as possible, such as the product's trade name or manufacturer. Once the MSDS is located, it can be customized with base-specific information and the data then imported into the base's own AF-EMIS program. The information can be printed out as well, giving HAZMART personnel a hard copy of the actual manufacturer's MSDS.

Also, on a very large base with a very small HAZMART staff, H.O.M.E. can help ease the pharmacy's workload. If employees already have an MSDS on hand, they can go to the program's Web site, print out a copy of the fax cover sheet, provide the base-specific information the sheet requires and then fax that along with the MSDS to the Research Dynamics H.O.M.E. help desk. The personnel there will do all the data inputting. Thirty minutes later, the folks back at the base HAZMART can log on to the H.O.M.E Web page, find the online version of the MSDS they faxed in and download it automatically to their base's AF-EMIS program.

"We hope to be saving people a lot time and a lot of manual entry," said John Woods, Research Dynamics director of communication for AF-EMIS, adding that "the image H.O.M.E. users will see when they call up an MSDS is, in fact, the actual manufacturer's MSDS."

In addition to allowing the creation of AF-EMIS records, H.O.M.E. also enables HAZMART personnel to revise those records automatically using the system's periodic update function.

Bottom line is that H.O.M.E. is designed to save time and effort for those people whose full-time job is pollution prevention – reducing the use of hazardous chemicals and generation of hazardous waste.

Observed Prasad Koukuntla, a member of the Research Dynamics technical staff: "I didn't realize that initially, when I was working on the project, but now that people have been using it, I see that it makes their lives very easy. All they have to do is download the information, and they can be assured that it contains correct data."

Felicia Soileau at the Research Dynamics, Inc., H.O.M.E help desk handles a query from a user of the innovative Help On MSDS Entry automated program.

"The critical factor is that the data is complete and accurate," Woods agreed. "That's the real focus."

Providing fast and accurate assistance is important regardless of whether the system supports a facility with 30 to 40 workers or one "poor guy out in Fargo, N.D., who's sitting down putting wood in the fire at the same time that he's trying to keep his pharmacy operating," Woods said.

Added Bill Kivela, AFCEE's AF-EMIS program manager: "The whole concept is to share MSDS information and the associated AF-EMIS records with all of the 178 AF-EMIS bases across the Air Force, Air Force Reserve and Air National Guard rather than having them all enter the same data at each base. H.O.M.E will save time and money, and will ensure chemical constituent data accuracy across the Air Force."

AFCEE officials added that in addition to being cost-effective, H.O.M.E. also provides users with a centrally located staff of experts who can provide answers to a base's AF-EMIS questions.

The H.O.M.E. Web site is restricted to military organizations and currently is available only to Air Education and Training Command bases. For more information on the program, contact Kivela at DSN 240-3769 (commercial 210-536-3769) or e-mail him at william.kivela@hqafcee.brooks.af.mil.

Online is easier

By George Potter

A stack of notebooks is never fun to deal with. Even less fun is a stack of notebooks that constantly need to be updated and referenced.

In order to remedy this nuisance, AFCEE's Environmental Quality division has been working to put its model shop report data into an easy-to-use, online format.

These reports contain a variety of information and models of ideal pollution prevention techniques that have been successful at various sites. This might include the substituting of less hazardous chemicals, using different treatment materials or a change in methods.

"We have a bunch of reports," Capt. Steve Novak of the Environmental Quality Directorate said, "so what we're doing now is making a Website where all this information will be easily found."

Additionally, placing the information online will make it easier to update as the procedures are being continually refined.

Upon entering the Website, the user is greeted by a picture of a guardhouse and its guard that serves as the home page for the site. Also present is an introduction to the Website as well as five different options to help gain information: help, library, school, model shops and environmental office.

All new users will need to do is fill out a short information page detailing who they are, where they work, what job they do, what shop they are in and what process they need information about.

Currently, the data has not yet been entered into the Website, but Novak anticipates that it will be finished by mid-August for premiere at the Worldwide Pollution Prevention Conference. Then, users will be able to check the AFCEE Website for information about availability.

In the end, Novak anticipates the program as being a tool that will allow those in the field on a daily basis to find and submit models.

"What I envision, eventually," Novak said, "is having every successful pollution prevention idea in this Website. Then a worker can visit our site, visit a shop much like theirs and identify pollution prevention opportunities that will work for them."